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MATERIAL SAFETY DATA SHEET DESOTO, INC.

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CATALYST

Revised: 02/09/91

SECTION I - PRODUCT IDENTIFICATION

ENVIRONMENTAL AFFAIRS

1608 FOURTH STREET

JUL 2 3 1991BERKELEY

CA 94710

Product Class: AROMATIC POLYISOCYANATE

Trade Name : I F T CURING SOLUTION Product Code : 910-702

C.A.S. Number: MIXTURE

D.O.T. Hazard Class : Flammable liquid

Proper Shipping Name: Paint

Manufact Heart and DESOTO AEROSPACE COATINGS, INC Information Phone: (818) 549-7823 Emergency Phone: (800) 228-5635 CHEMTREC Phone: (800) 424-9300

! Hazard Ratings: Health - 3 ! none - extreme Fire - 3 ! 0 --- 4 Reactivity - 1

ppm

Personal Protection - J

UN #: UN1263

SECTION II - INGREDIENTS

Weight --- Exposure Limits ---- VP % ACGIH/TLV OSHA/PEL Ingredients CAS #

000078-93-3 10. 200 STEL= 300 *METHYL ETHYL KETONE 200 ppm 300

METHYLENE BISPHENYL 000101-68-8 40. 0.005 ppm C-0.02 ppm

ISOCYANATE (MDI)

POLYMERIC MDI 9016-87-9 50. Undetermined

*** ALL Ingredients in this product are listed in the T.S.C.A. Inventory.

PERCENT BY WEIGHT:

TO NEAREST 5% FOR SUBSTANCES 5-95% NE=NOT ESTABLISHED

<5.0% FOR SUBSTANCES 1.0-5.0%

S=SKIN; C=CEILING LIMIT

NA=NOT APPLICABLE

* -> These items are listed on the SARA TITLE III Section 313 inventory

SECTION III - PHYSICAL DATA

Boiling Range: 175 - 175 Deg. F Vapor Density: Heavier than Air.

Volatiles volume: 16 %

Evap. Rate: Slower than n-Butyl Acetate Liquid Density: Lighter than Water. Wgt per gallon: 9.79 Pounds.

Spec. Gravity: 1.18

Appearance: DARK BROWN LIQUID, SOLVENT ODOR

V.O.C.: 128 GRAMS/LITER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

-EXTINGUISHING MEDIA:

EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM).

-SPECIAL FIRE FIGHTING PROCEDURES:

WATER SPRAY MAY BE INEFFECTIVE, COOL FIRE EXPOSED CONTAINERS FOG NOZZLES ARE PREFERRABLE. WEAR NIOSH/MSHA WITH WATER. APPROVED SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (cont.)

-UNUSUAL FIRE & EXPLOSION HAZARDS:

VAPORS MAY ACCUMULATE IN INADEQUATELY VENTILATED OR CONFINED AREAS. VAPORS MAY FORM EXPLOSIVE MIXTURES WITH AIR. VAPORS MAY TRAVEL LONG DISTANCES. FLASHBACK OR FLAME TO THE HANDLING SITE MAY OCCUR. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

DURING A FIRE, IRRITATING AND TOXIC GASES AND AEROSOLS FROM THE DECOMPOSITION/COMBUSTION PRODUCTS MAY BE PRESENT.

SECTION V - HEALTH HAZARD DATA

-PERMISSIBLE EXPOSURE LEVEL

SEE SECTION II (NOT ESTABLISHED FOR PRODUCT).

-EFFECT OF OVEREXPOSURE:

-INHALATION

EXPOSURE MAY CAUSE NASAL AND RESPIRATORY IRRITATION AND ACUTE CENTRAL NERVOUS SYSTEM DEPRESSION CHARACTERIZED BY HEADACHE, DIZZINESS, STAGGERING GAIT, CONFUSION OR UNCONSCIOUSNESS. ASPHYXIATION MAY RESULT FROM BREATHING OXYGEN DEFICIENT AIR. INHALATION OF ISOCYANATES MAY CAUSE ALLERGIC SENSITIZATION. SYMPTOMS MAY INCLUDE MUCOUS MEMBRANE IRRITATION, TIGHTNESS IN CHEST, IRRITATION OF THE RESPIRATORY TRACE, COUGHING, HEADACHE, AND SHORTNESS OF BREATH. ASTHMA-LIKE ATTACKS MAY FOLLOW.

-SKIN CONTACT:

PROLONGED OR REPEATED CONTACT MAY CAUSE IRRITATION, DEFATTING OR DERMATITIS.

PROLONGED OR REPEATED SKIN CONTACT MAY ALSO RESULT IN SKIN SENSITIZATION IN SOME INDIVIDUALS.

-EYE CONTACT:

CAUSES IRRITATION.

-INGESTION:

MAY CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING AND DIARRHEA.

-OTHER HEALTH INFORMATION:

AVOID PROLONGED AND REPEATED CONTACT WITH THIS PRODUCT.
REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL
OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM
DAMAGE. EFFECTS INCLUDE CONCENTRATION DIFFICULTIES, DIMINISHED
ACTUAL DEXTERITY AND MEMORY LOSS.

-MEDICAL CONDITIONS AGGREVATED BY EXPOSURE:

PRE-EXISTING SKIN, LUNG AND EYE CONDITIONS.

-FIRST AID:

-INHALATION:

REMOVE TO FRESH AIR FROM EXPOSURE. GIVE ARTIFICIAL RESPIRATION OR CARDIOPULMONARY RESUSCITATION (CPR) IF REQUIRED. IF BREATHING IS DIFFICULT, GIVE OXYGEN. KEEP WARM AND QUIET. GET MEDICAL ATTENTION.

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SECTION V - HEALTH HAZARD DATA (cont.)

-SKIN CONTACT:

WASH AFFECTED AREAS WITH SOAP AND WATER. DO NOT USE SOLVENTS. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE. GET MEDICAL ATTENTION.

-EYE CONTACT:

FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL ATTENTION PREFERRABLY FROM AN OPTHALMOLOGIST.

-INGESTION:

GET MEDICAL ATTENTION.

SECTION VI - REACTIVITY DATA

STABLITY: [] Unstable [x] Stable

-INCOMPATABILITY:

NONE RECOGNIZED UNLESS NOTED BELOW.

AVOID CONTACT WITH WATER, ALCOHOLS AND AMINES.

-CONDITIONS TO AVOID:

NONE RECOGNIZED UNLESS NOTED BELOW.

TEMPERATURES ABOVE MAXIMUM STORAGE TEMPERATURES.

-HAZARDOUS DECOMPOSITION PRODUCTS:

PRODUCTS OF COMBUSTION ARE HAZARDOUS INCLUDING CARBON MONOXIDE AND CARBON DIOXIDE.

MAY ALSO INCLUDE OXIDES OF NITROGEN AND TRACES OF HCN AND ISOCYANATE MONOMER.

SECTION VII - SPILL OR LEAK PROCERURES

-ENVIRONMENTAL RELEASES

DEPENDING ON THE QUANTITY AND CIRCUMSTANCES, AN UNAUTHORIZED RELEASE OF THIS MATERIAL TO THE ENVIRONMENT MAY BE REPORTABLE UNDER FEDERAL LAW TO THE NATIONAL RESPONSE CENTER (800-424-8802). STATE AND LOCAL GOVERNMENTAL AGENCIES MAY ALSO HAVE REPORTING REQUIREMENTS OF WHICH YOU SHOULD BE AWARE. REMOVE ALL SOURCES OF IGNITION. WEAR PERSONAL PROTECTIVE EQUIPMENT TO AVOID BREATHING VAPORS AND SKIN AND EYE CONTACT WITH THE SPILLED MATERIAL. USE NON-SPARKING TOOLS. USE EMERGENCY RESPONSE PROFESSIONAL IF MANAGING A RELEASE IS BEYOND THE CAPABILITY OF IN-HOUSE PERSONNEL. FOR SMALL SPILLS, DIKE AND ABSORB WITH INERT MATERIAL.

COLLECT MATERIAL IN OPEN TOP DRUM AND TAKE TO ISOLATED AREA (OUT-OF-DOORS PREFERRED). FILL DRUM WITH DECONTAMINATION SOLUTION OF WATER (90-95%), DETERGENT (2%) AND AMMONIA (3-8%).

NEUTRALIZE SPILL AREA WITH DECONTAMINATION SOLUTION. -WASTE DISPOSAL METHOD:

WHEN DISPOSING OF THIS MATERIAL, ENSURE THAT IT IS PACKAGED, STORED, TRANSPORTED AND OTHERWISE MANAGED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. NO DISPOSAL METHOD IS TO BE USED THAT WOULD POSE AN ENVIRONMENTAL OR HUMAN HEALTH THREAT INCLUDING ANY WHICH WOULD CONTAMINATE GROUND OR SURFACE WATER.

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SECTION VIII - SPECIAL PROTECTION INFORMATION:

-RESPIRATORY PROTECTION:

IN AREAS WHERE TLVS IN SECTION II MAY BE EXCEEDED OR IF SPRAY MIST IS PRESENT, USE NIOSH/MSHA APPROVED RESPIRATORY PROTECTION APPROPRIATE FOR INDICATED COMPONENTS. IN CONFINED AREAS USE NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATORS. FOLLOW RESPIRATOR MANUFACTURER'S DIRECTIONS AND OSHA REGULATIONS (29 CFR 1910.134) FOR RESPIRATOR USE. OSHA AND NIOSH HAVE TAKEN THE POSITION THAT SUPPLIED AIR RESPIRATORS OR SELF-CONTAINED BREATHING APPARATUSES ARE THE

RESPIRATORS OR SELF-CONTAINED BREATHING APPARATUSES ARE THE ONLY APPROPRIATE RESPIRATORY PROTECTION WHERE ISOCYANATE LEVELS EXCEED EXPOSURE LIMITS.

-VENTILATION:

WHERE EMPLOYEES MAY BE EXPOSED, PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP LEVEL OF HAZARDOUS INGREDIENTS IN SECTION II BELOW RECOMMENDED (ACGINTLY) OR REGULATED (OSHA PEL) LIMIT. WHERE EMPLOYEES WILL NOT BE EXPOSED, KEEP LEVEL BELOW 25% OF LEL IN SECTION II.

-PROTECTIVE GLOVES:

WEAR CHEMICALLY RESISTANT GLOVES.

-EYE PROTECTION:

SAFETY GLASSES WITH SIDE SHIELDS OR GOGGLES.

-OTHER PROTECTIVE EQUIPMENT:

AVOID SKIN CONTACT BY USE OF OTHER PROTECTIVE CLOTHING. A SAFETY SHOWER, AN EYE BATH AND WASHING FACILITIES SHOULD BE AVAILABLE.

SECTION IX - SPECIAL PRECAUTIONS

-PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

KEEP CONTAINER TIGHTLY CLOSED. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS AND FLAME. DO NOT STORE ABOVE 49 DEG C (120 DEG F). STORE FLAMMABLE LIQUIDS IN ACCORDANCE WITH APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CODES AND GOVERNMENTAL REGULATIONS.

GROUNDING AND BONDING PROCEDURES SHOULD BE FOLLOWED WHEN TRANSFERRING THIS MATERIAL. AVOID FREE FALL OF LIQUID. DO NOT SMOKE WHERE THIS MATERIAL IS USED OR STORED. DO NOT APPLY TO HOT SURFACES.

STORE IN TIGHTLY CLOSED CONTAINERS AND PROTECT FROM MOISTURE AND FOREIGN MATERIALS. IDEAL STORAGE TEMPERATURE RANGE IS 10-30 DEG C (64-86 DEG F). ISOCYANATES REACT SLOWLY WITH WATER TO FORM COZ GAS WHICH CAN CAUSE CONTAINER TO EXPAND OR RUPTURE.

-OTHER PRECAUTIONS:

EMPTY DRUMS MAY CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, PUNCTURE OR WELD ON OR NEAR DRUM.

DO NOT TAKE INTERNALLY. DO NOT DELIBERATELY CONCENTRATE THIS PRODUCT AND INHALE THE VAPORS. PREVENT PROLONGED CONTACT WITH CONTAMINATED CLOTHING. WASH CONTAMINATED CLOTHING BEFORE REUSE. VAPORS OF THIS PRODUCT ARE HEAVIER THAN AIR AND MAY COLLECT IN LOW OR CONFINED AREAS. DO NOT ENTER SUCH AREAS WITHOUT FOLLOWING APPROPRIATE PROCEDURES INCLUDING AIR MONITORING, USE OF SUPPLIED AIR IF NECESSARY AND THE PRESENCE OF AN OBSERVER (cont.)

SECTION IX - SPECIAL PRECAUTIONS (cont.)

-OTHER PRECAUTIONS: (cont.)
FOR ASSISTANCE.

OBSERVE PRECAUTIONARY LABEL WARNINGS.